



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW1428GA-JM BYPASS RATIO: 12.1
 UNIQUE ID NUMBER: 01P22PW171 PRESSURE RATIO (π_{00}): 33.3
 COMBUSTOR: TALON X, Block-C
 ENGINE TYPE: TF RATED THRUST (F_{00}) (kN): 132.4

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	0.5	31.5	28.0	15.9
AS % OF ORIGINAL LIMIT	2.6	26.7	26.2	72.6
AS % OF CAEP/2 LIMIT (NO _x)			32.8	
AS % OF CAEP/4 LIMIT (NO _x)			38.0	
AS % OF CAEP/6 LIMIT (NO _x)			42.6	
AS % OF CAEP/8 LIMIT (NO _x)			49.3	

For non-volatile particulate matter (nvPM) emissions, please refer to the ICAO Engine nvPM Emissions Data Sheet.

DATA STATUS

- PRE-REGULATION
 x CERTIFICATION
 - REVISED (SEE REMARKS)

TEST ENGINE STATUS

- NEWLY MANUFACTURED ENGINES
 x DEDICATED ENGINES TO PRODUCTION STANDARD
 - OTHER (SEE REMARKS)

EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE
 (ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
 - OUT OF PRODUCTION (DATE: -)
 - OUT OF SERVICE (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F ₀₀)	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	0.870	0.06	0.22	20.31	14.5
CLIMB OUT	85	2.2	0.720	0.04	0.26	16.37	12.4
APPROACH	30	4.0	0.250	0.02	4.72	9.17	0.5
IDLE	7	26.0	0.090	0.36	26.64	4.96	1.1
LTO TOTAL FUEL (kg) or EMISSIONS (g)			332	58	4057	3545	-
NUMBER OF ENGINES				3	3	3	3
NUMBER OF TESTS				9	9	9	9
AVERAGE D _p /F ₀₀ (g/kN) or AVERAGE SN (MAX)				0.4	29.1	26.0	14.5
SIGMA (D _p /F ₀₀ in g/kN, or SN)							
RANGE (D _p /F ₀₀ in g/kN, or SN)							

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS
 STAGE BLEED 0 (% CORE FLOW) AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	100.9-103
TEMPERATURE (K)	266.2-298.7
ABS HUMIDITY (kg/kg)	0.00036-0.01437

FUEL

SPEC	Jet A
H/C	1.86
AROM (%)	15.1-16.6

MANUFACTURER: Pratt & Whitney
 TEST ORGANIZATION: Pratt & Whitney
 TEST LOCATION: X7 Test Stand, East Hartford, CT
 TEST DATES: 02/03/2017-19/09/2017

NO_x REGULATION PARAGRAPH

	2.3.2 c) (CAEP/4)
	2.3.2 d) (CAEP/6)
x	2.3.2 e) (CAEP/8)

REMARKS

- Data from certification report PWA-9850
- 3 engines tested
- TALON-X, Block-C* combustor
- Certification in accordance with ICAO Annex 16 Vol. II. 3rd Edition, Amendment 7, Part III, Chapter 2.

Compliance with Fuel Venting requirements: x ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)